



CLIENT USEPA

PROJECT NAME Blades Groundwater

PROJECT NUMBER 30250.016.003.0207.00

PROJECT LOCATION Blades, DE

DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0			Pale brown well-sorted find SAND, trace silt, dry, loose	
		2.0	Pale reddish brown well-sorted subangular medium SAND, trace silt, loose; wet at 5 feet	
5		6.0	Light grayish brown well-sorted medium subangular SAND, loose, wet	
		8.0	Light grayish brown poorly-sorted fine to coarse subangular SAND, loose, wet, grades to light gray	
10		13.7	Medium gray SILT, slight plasticity, soft, some very fine sand, moist	
		14.0	Bottom of hole at 13.0 feet.	

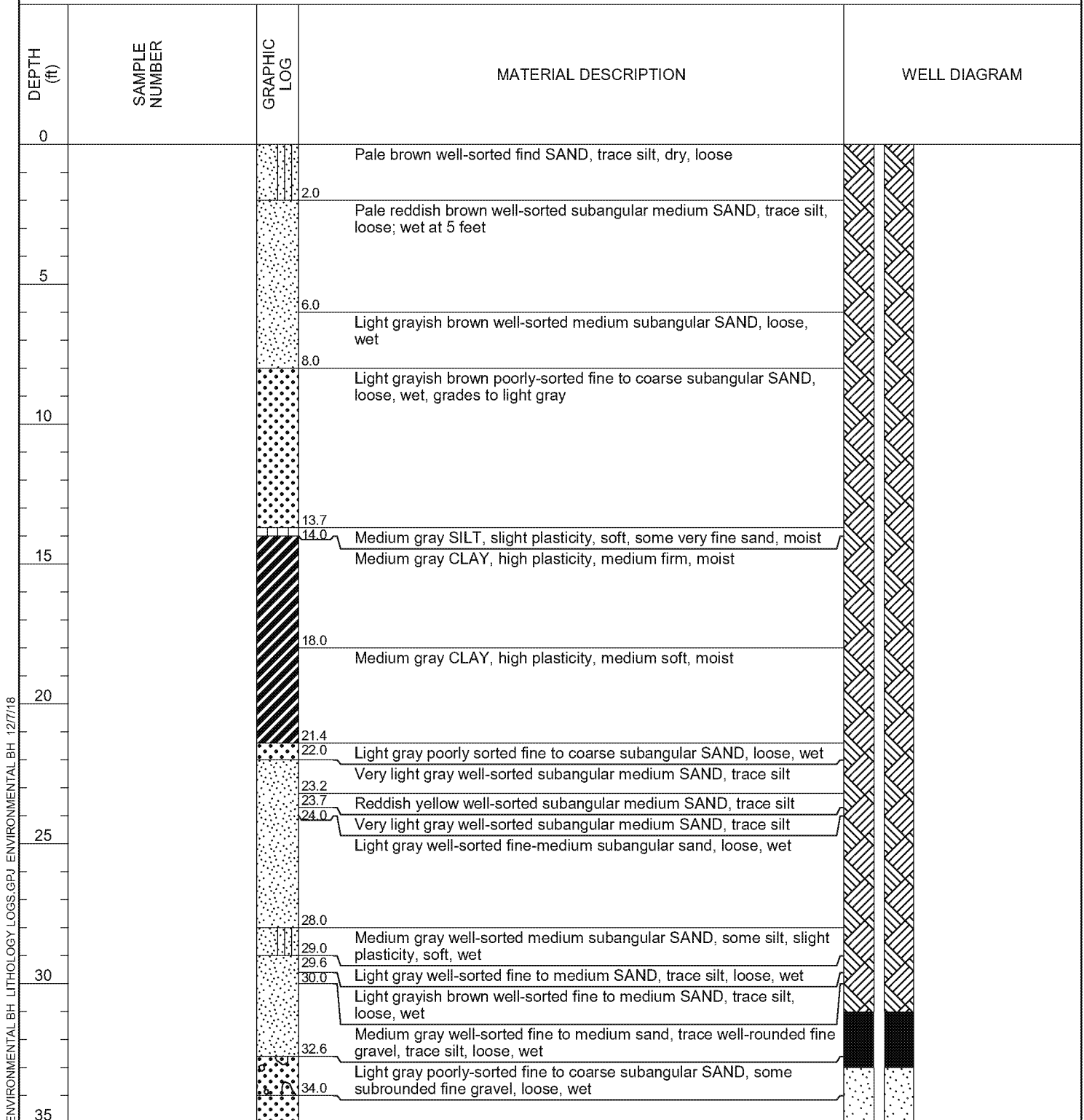


CLIENT USEPA

PROJECT NAME Blades Groundwater

PROJECT NUMBER 30250.016.003.0207.00

PROJECT LOCATION Blades, DE



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CLIENT USEPA

PROJECT NAME Blades Groundwater

PROJECT NUMBER 30250.016.003.0207.00

PROJECT LOCATION Blades, DE

DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
35				
			36.2 Medium gray poorly-sorted fine to coarse subangular SAND, very dense, trace silt, wet (<i>continued</i>)	
			Light gray poorly-sorted fine to coarse subangular SAND, some fine to coarse well-rounded gravel, very dense, wet	
40				
			41.8 Very light gray well-sorted fine subangular SAND, loose, wet	
45				
			46.0 Bottom of hole at 46.0 feet.	



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PROJECT LOCATION Blades, DE

DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0				
		0.6	Dark brownish gray well-sorted fine subangular SAND, some silt, some subangular fine gravel, trace silt, loose, moist	
		2.0	Dark brownish gray well-sorted fine SAND, trace silt, loose, moist	
			Very light brown well-sorted fine SAND, little silt, loose, wet	
5				
		8.8		
10		9.8	Very pale brown well-sorted medium subangular SAND, trace silt, loose, wet	
		10.0		
		10.5	Light reddish yellow well-sorted medium subangular SAND, trace silt, loose, wet	
		10.6		
		11.5	Light brownish gray well-sorted medium subangular SAND	
		11.7		
		12.0	Dark grayish brown well-sorted medium subangular SAND	
		12.4	Light brownish gray well-sorted medium subangular SAND	
		13.0	Light reddish yellow well-sorted medium subangular SAND	
			Light yellowish gray well-sorted subangular fine SAND, loose, wet	
			Black poorly-sorted fine to coarse subangular SAND, some silt, slight plasticity, medium dense, no odor	
			Light gray well-sorted fine SAND, some silt, slight plasticity, dense, wet	
			Bottom of hole at 13.0 feet.	

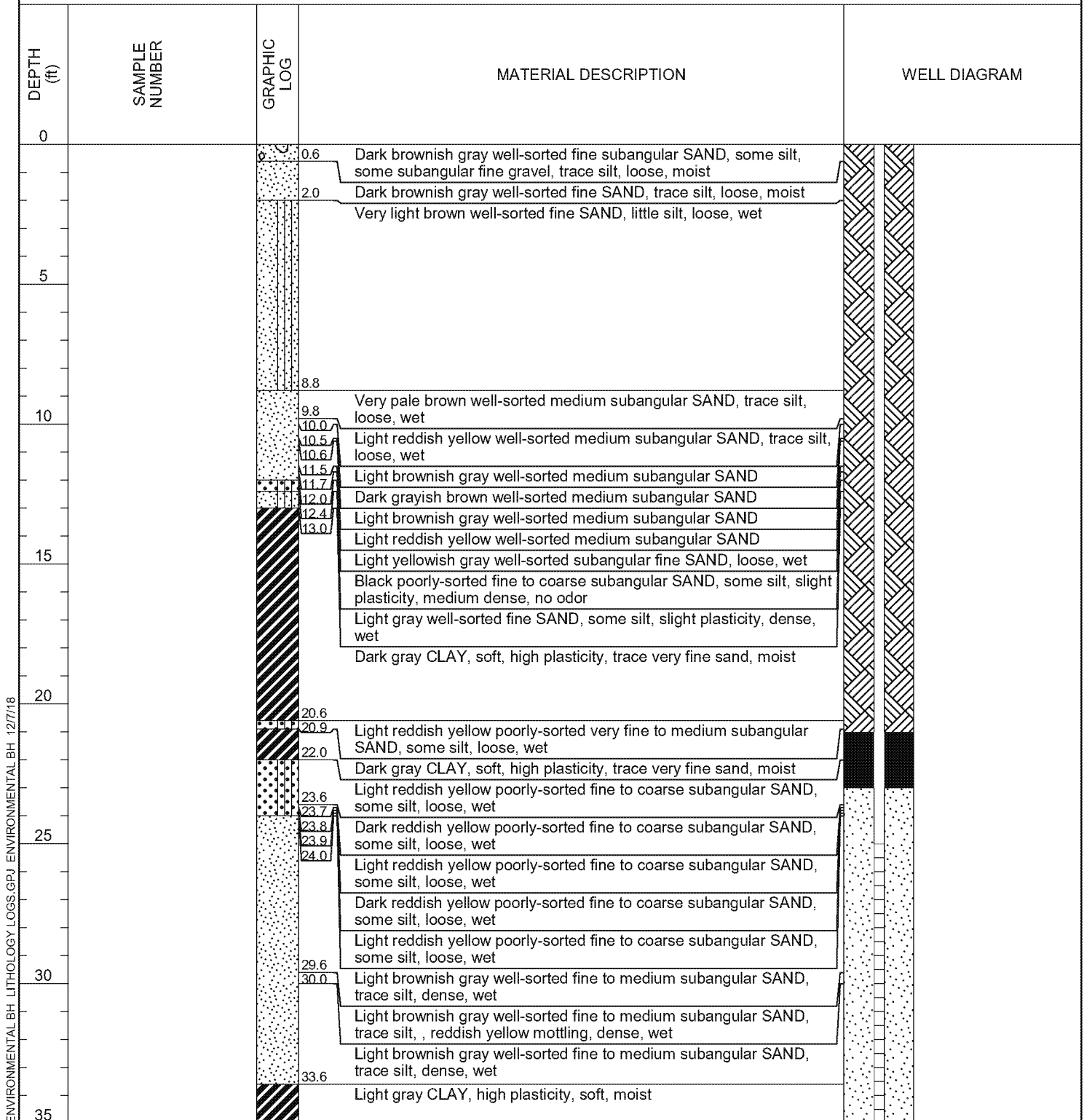


CLIENT USEPA

PROJECT NAME Blades Groundwater

PROJECT NUMBER 30250.016.003.0207.00

PROJECT LOCATION Blades, DE




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CLIENT	USEPA	PROJECT NAME	Blades Groundwater
PROJECT NUMBER	30250.016.003.0207.00	PROJECT LOCATION	Blades, DE

DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM	
35			36.0 Light gray CLAY, high plasticity, soft, moist (<i>continued</i>)		
			Bottom of hole at 36.0 feet.		



CLIENT USEPA

PROJECT NAME Blades Groundwater

PROJECT NUMBER 30250.016.003.0207.00

PROJECT LOCATION Blades, DE

DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0				
		1.0	Dark grayish brown poorly-sorted fine to coarse subangular SAND, some silt, some angular fine gravel, loose, moist Light reddish brown well-sorted fine SAND, loose, moist	
5				
		7.0	Light gray CLAY, high plasticity, medium firm, wet at 7 feet	
		8.8		
10		9.0	Light gray well-sorted fine SAND, loose, wet Light gray well-sorted fine SAND, light reddish yellow mottling and very fine dark gray horizontal color lamination, loose, wet; grades to light yellowish red	
		14.0	Light brown well-sorted fine SAND, loose, wet	
15		15.6	Light reddish brown poorly-sorted fine to coarse subangular SAND, trace silt, some well-rounded fine gravel, loose, wet	
		17.6	Dark gray high plasticity CLAY, soft, moist	
		18.0	Bottom of hole at 18.0 feet.	

ENVIRONMENTAL BH LITHOLOGY LOGS.GPJ ENVIRONMENTAL BH 12/7/18



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PROJECT NAME Blades Groundwater

PROJECT NUMBER 30250.016.003.0207.00

PROJECT LOCATION Blades, DE

DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0				
		1.0	Dark grayish brown poorly-sorted fine to coarse subangular SAND, some silt, some angular fine gravel, loose, moist Light reddish brown well-sorted fine SAND, loose, moist	
5		7.0	Light gray CLAY, high plasticity, medium firm, wet at 7 feet	
		8.8		
10		9.0	Light gray well-sorted fine SAND, loose, wet Light gray well-sorted fine SAND, light reddish yellow mottling and very fine dark gray horizontal color lamination, loose, wet; grades to light yellowish red	
		14.0	Light brown well-sorted fine SAND, loose, wet	
15		15.6	Light reddish brown poorly-sorted fine to coarse subangular SAND, trace silt, some well-rounded fine gravel, loose, wet	
		17.6		
		18.0	Dark gray high plasticity CLAY, soft, moist No recovery	
20		20.0	Medium gray CLAY, soft, high plasticity, trace fine sand, wet	
		22.0	No recovery	
		24.0	Medium gray CLAY, soft, high plasticity, trace fine sand, wet	
25		26.0	Light gray well-sorted fine SAND, some silt, some subrounded fine to coarse gravel, some yellowish red mottling, dense, wet	
30				
35				

ENVIRONMENTAL BH LITHOLOGY LOGS.GPJ ENVIRONMENTAL BH 12/7/18

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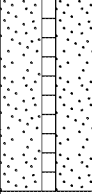



CLIENT USEPA

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PROJECT NUMBER 30250.016.003.0207.00

PROJECT LOCATION Blades, DE

DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
35				
			Light gray well-sorted fine SAND, some silt, some subrounded fine to coarse gravel, some yellowish red mottling, dense, wet (<i>continued</i>)	
		38.4		
			Medium gray CLAY, soft, high plasticity, wet	
40				
		42.0		
			Bottom of hole at 42.0 feet.	



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PROJECT NUMBER 30250.016.003.0207.00

PROJECT LOCATION Blades, DE

DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0				
		0.4	Dark grayish brown well-sorted fine SAND, some silt, loose, dry	
		0.8	Poorly-sorted fine to coarse subangular GRAVEL, some silt, loose, dry	
		2.0	Medium grayish brown fine SAND, some silt, loose	
			Light yellowish brown well-sorted fine SAND, subangular, some silt, loose, moist, wet at 4 feet	
5				
		7.2	Very light gray well-sorted fine SAND, subangular, little silt, loose, wet	
10		10.0	Very light gray well-sorted fine SAND, subangular, little silt, loose, wet, grades to very light brown well-sorted fine to medium SAND, subangular, loose, wet	
		13.0		
		14.0	Medium gray high plasticity CLAY, soft, wet	
			Bottom of hole at 13.0 feet.	



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PROJECT NUMBER 30250.016.003.0207.00

PROJECT LOCATION Blades, DE

DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0				
		0.4	Dark grayish brown well-sorted fine SAND, some silt, loose, dry	
		0.8	Poorly-sorted fine to coarse subangular GRAVEL, some silt, loose, dry	
		2.0	Medium grayish brown fine SAND, some silt, loose	
			Light yellowish brown well-sorted fine SAND, subangular, some silt, loose, moist, wet at 4 feet	
5				
		7.2	Very light gray well-sorted fine SAND, subangular, little silt, loose, wet	
10		10.0	Very light gray well-sorted fine SAND, subangular, little silt, loose, wet, grades to very light brown well-sorted fine to medium SAND, subangular, loose, wet	
		13.0		
		14.0	Medium gray high plasticity CLAY, soft, wet	
15			Medium gray high plasticity CLAY, soft, wet, grades to medium firm	
		16.0	Medium gray high plasticity CLAY, soft, wet	
20		19.6		
		20.0	Light reddish brown well-sorted subangular medium SAND, some silt	
			Light reddish brown well-sorted subangular medium SAND, some silt, grades to light gray	
		22.0	Light gray well-sorted fine to medium SAND, subangular, some silt, dense, wet	
		23.8		
25		25.0	Light reddish yellow well-sorted fine to medium SAND, subangular, some silt, dense, wet	
		26.0	Very light gray fine to coarse well-rounded GRAVEL and poorly-sorted fine to coarse sand, some silt, dense, wet	
			Very light gray fine to coarse well-rounded GRAVEL and poorly-sorted fine to coarse sand, some silt, dense, wet, reddish yellow mottling	
		28.0		
			No recovery	
30		30.0	Light gray poorly-sorted fine to coarse subangular SAND, fine subangular gravel, some silt, dense, wet	
		33.8		
35		33.9	Light reddish yellow poorly-sorted fine to coarse subangular SAND, fine subangular gravel, some silt, dense, wet	

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CLIENT USEPA

PROJECT NAME Blades Groundwater

PROJECT NUMBER 30250.016.003.0207.00

PROJECT LOCATION Blades, DE

DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
35				
			36.0 Light gray poorly-sorted fine to coarse subangular SAND, fine subangular gravel, some silt, dense, wet, trace shell fragments <i>(continued)</i> Light gray poorly-sorted fine to coarse subangular SAND, fine subangular gravel, some silt, dense, wet, trace shell fragments, dark gray horizontal lamination	
40				
			42.0 Dark brownish gray CLAY, soft, high plasticity, wet	
			44.0 Bottom of hole at 44.0 feet.	



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PROJECT LOCATION Blades, DE

DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0				
		1.0	Dark brownish gray well-sorted very fine SAND, loose, some silt, roots, moist	
			Light yellowish brown well-sorted subangular fine SAND, some silt, loose moist	
5		6.0	Light yellowish brown well-sorted subangular fine SAND, some silt, loose moist, grades to well-sorted fine-to medium subangular SAND, little silt, light gray with reddish yellow mottling	
		8.0	Light gray well-sorted fine to medium subangular SAND, little silt, some small subrounded gravel, medium dense, wet	
10		10.0	Medium gray CLAY, very firm, high plasticity, moist	
		11.6		
		12.0	Light gray well-sorted subangular medium SAND, loose, wet	
			Light reddish yellow well-sorted fine SAND, some silt, some subrounded fine to mediu gravel, trace shell fragments, dense, wet	
		14.0		
			Bottom of hole at 12.0 feet.	



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PROJECT LOCATION Blades, DE

DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0				
		1.0	Dark brownish gray well-sorted very fine SAND, loose, some silt, roots, moist	
			Light yellowish brown well-sorted subangular fine SAND, some silt, loose moist	
5		6.0	Light yellowish brown well-sorted subangular fine SAND, some silt, loose moist, grades to well-sorted fine-to medium subangular SAND, little silt, light gray with reddish yellow mottling	
		8.0	Light gray well-sorted fine to medium subangular SAND, little silt, some small subrounded gravel, medium dense, wet	
10		10.0	Medium gray CLAY, very firm, high plasticity, moist	
		11.6	Light gray well-sorted subangular medium SAND, loose, wet	
		12.0	Light reddish yellow well-sorted fine SAND, some silt, some subrounded fine to mediu gravel, trace shell fragments, dense, wet	
		14.0	Light gray very firm high plasticity CLAY, moist	
15		16.0	No recovery	
		18.0	Light gray CLAY, medium firm, high plasticity, wet	
20		22.0	Medium brown well-sorted very fine to fine SAND, some silt, dense, wet	
		23.4	Light brownish red well-sorted very fine to fine SAND, dense, wet	
25		28.0	Light brownish gray well-sorted fine SAND, subangular, some silt, dense, wet	
30				
35				

ENVIRONMENTAL BH LITHOLOGY LOGS.GPJ ENVIRONMENTAL BH 12/7/18

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CLIENT	USEPA	PROJECT NAME	Blades Groundwater
PROJECT NUMBER	30250.016.003.0207.00	PROJECT LOCATION	Blades, DE

DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
35				
40			Light brownish gray well-sorted fine SAND, subangular, some silt, dense, wet (<i>continued</i>)	
		44.0	Bottom of hole at 44.0 feet.	



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PROJECT NUMBER 30250.016.003.0207.00

PROJECT LOCATION Blades, DE

DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0				
		1.0	Dark gray well-sorted fine SAND, some silt, roots, loose, dry	
		1.8	Medium brownish gray well-sorted fine SAND, some silt, roots, loose, dry	
			Light yellowish brown well-sorted fine SAND, some silt, roots, loose, dry, reddish yellow mottling	
5		6.2	Light yellowish brown well-sorted medium subangular SAND, some silt, loose, wet	
		8.0	Light yellowish brown well-sorted medium subangular SAND, some silt, trace well-rounded fine gravel, loose, wet	
10		11.8	Light reddish yellow CLAY, soft, high plasticity, wet	
		12.0	Light reddish yellow CLAY, soft, high plasticity, wet, grades to medium gray	
		14.0	Bottom of hole at 13.0 feet.	

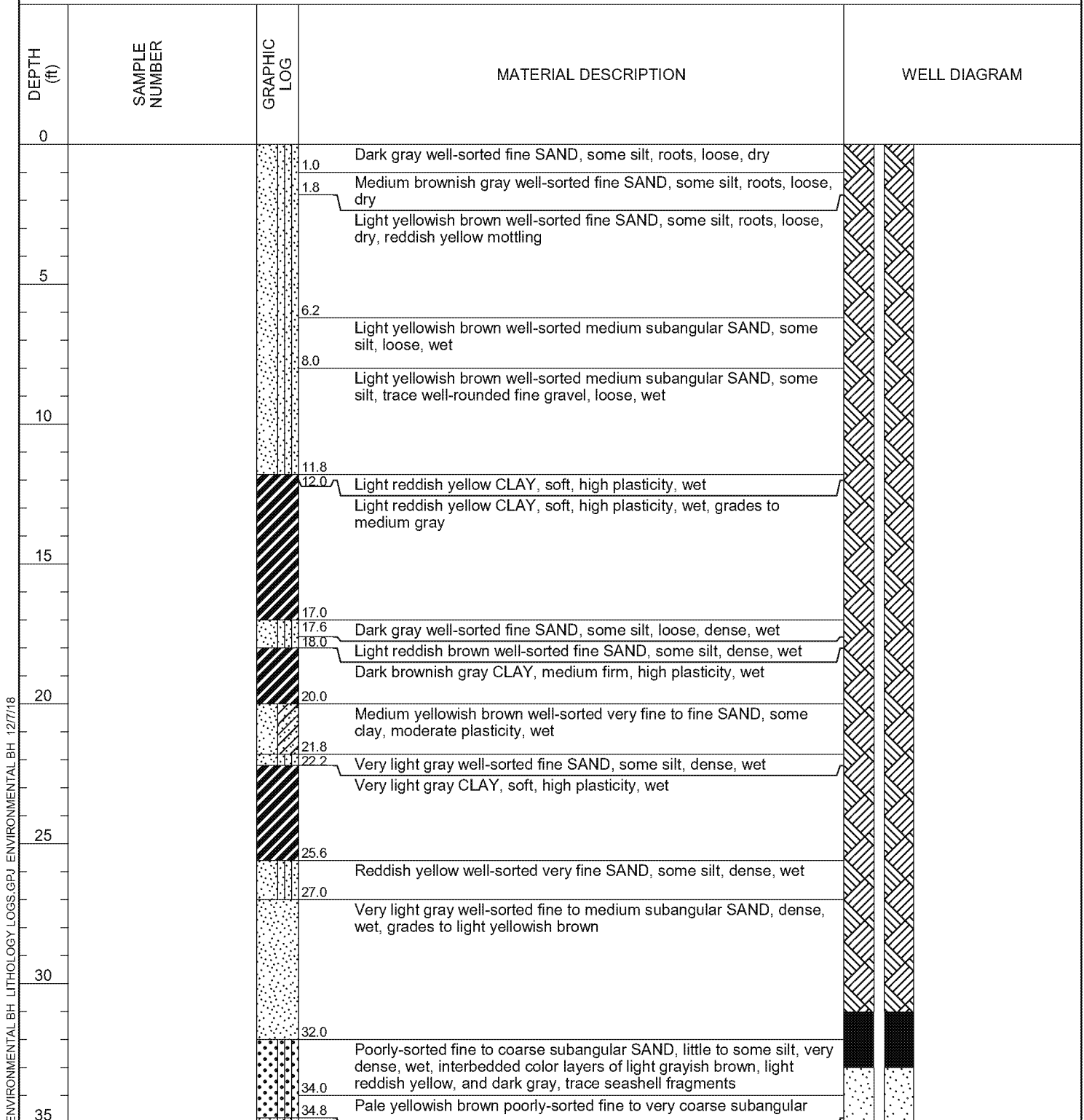


CLIENT USEPA

PROJECT NAME Blades Groundwater

PROJECT NUMBER 30250.016.003.0207.00

PROJECT LOCATION Blades, DE



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PROJECT NUMBER 30250.016.003.0207.00

PROJECT LOCATION Blades, DE

DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
35				
			SAND, some silt, very dense, wet Well-sorted very fine SAND, little to some silt, dense, wet, alternating interbedded light brownish gray and dark gray lamination (<i>continued</i>)	
		38.0		
		39.6	Light brownish gray poorly-sorted fine to very coarse subangular to subrounded SAND, some silt, very dense, wet	
40		40.0		
		41.0	Light yellowish brown poorly-sorted fine to very coarse subangular to subrounded SAND, some silt, very dense, wet	
		41.1		
		42.0	Very light gray well-sorted subangular medium SAND, little silt, very dense	
		43.0	Reddish brown SAND, some clay	
		44.0	Very light gray well-sorted subangular medium SAND, little silt, very dense	
45				
		46.0	Medium brownish gray poorly-sorted fine to coarse subangular SAND, some clay, slight plasticity, trace black subangular gravel	
			Light brownish gray well-sorted medium subangular SAND, dense, wet	
			Light brownish gray poorly-sorted fine to coarse subangular SAND, little silt, very dense, wet	
			Bottom of hole at 46.0 feet.	



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DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0				
		1.2	Dark grayish brown well-sorted fine SAND, some silt, loose, moist	
			Light yellowish brown well-sorted fine SAND, little silt, loose, moist, yellowish red mottling	
5		5.2	Light yellowish brown well-sorted medium subangular SAND, little silt, loose, wet	
		7.0	Light gray well-sorted medium SAND, little silt, loose, wet	
10				
		13.6	Yellowish red well-sorted medium subangular SAND, some silt, wet	
15			Dark gray CLAY, medium firm, high plasticity, wet	
		18.0	Dark gray well-sorted medium SAND and high plasticity CLAY, wet	
20		19.6	Yellowish red well-sorted medium subangular SAND, some clay, slight plasticity, wet	
		20.0	Medium gray well-sorted medium subangular SAND, some clay, slight plasticity, soft, yellowish red mottling, wet	
		22.0	Light to medium brownish gray well-sorted medium subangular SAND, some clay, slight plasticity, yellowish red mottling, wet	
		23.6	Light gray CLAY, medium firm, high plasticity, wet	
25				
		25.6	Light gray well-sorted medium subangular SAND, dense, wet, some soft clay, trace yellowish red mottling, slight plasticity, grades to light gray well-sorted fine subangular SAND, some silt, loose, wet	
		28.0	Light gray well-sorted very fine to fine SAND, some silt, wet	
30				
		31.2	Light brownish gray CLAY, medium firm, high plasticity, wet, grades to dark brownish gray high plasticity CLAY, soft, wet	
		33.4	Well-sorted subangular medium SAND, some silt, medium dense, light gray with horizontal yellowish red lamination	
35		34.0		

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DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
35				
			Light gray to light brownish gray poorly-sorted fine to coarse subangular SAND, some poorly-sorted well-rounded fine to coarse gravel, some silt, dense, wet, some reddish yellow mottling, grades to poorly-sorted fine to coarse subangular SAND, some clay, soft, wet (<i>continued</i>)	
		37.6		
			Dark brownish gray CLAY, medium firm, high plasticity, wet	
		39.4		
40		40.0	Yellowish red well-sorted fine subangular SAND, some silt, dense	
		41.0	Dark brownish gray soft high plasticity CLAY, wet	
		42.0	Very light gray well-sorted fine SAND, some silt, dense, wet	
			Light gray to light brownish gray well-sorted subangular fine SAND, some silt, loose, wet, trace yellowish red mottling	
		44.0		
45		45.4	Medium brownish gray well-sorted fine subangular SAND, some clay, slight plasticity, soft	
			Light yellow well-sorted fine subangular SAND, some silt, dense, wet	
50				
		52.0		
			Bottom of hole at 52.0 feet.	



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DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0				
		1.0	Very dark grayish brown well-sorted fine subangular SAND, some silt, loose, moist	
		1.6		
		2.2	Light yellowish brown well-sorted fine subangular SAND, little silt, loose, moist	
		4.0	Very dark grayish brown well-sorted fine subangular SAND, some silt, loose, moist	
5			Light grayish brown well-sorted fine subangular SAND, little silt, loose, moist	
		6.0	Light yellowish brown to light yellow well-sorted fine subangular SAND, little silt, loose, moist	
			Light brownish gray well-sorted subangular medium SAND, little silt, loose, reddish yellow mottling	
10		10.0		
		12.0	Light brownish gray well-sorted subangular medium SAND, little silt, loose, reddish yellow mottling, grades to poorly-sorted fine to coarse subangular SAND	
			Light brownish gray poorly-sorted fine to coarse subangular SAND, some silt, trace subangular fine to medium gravel, dense, wet	
15		14.4		
		15.2	Yellowish red CLAY, firm, high plasticity, wet	
			Dark gray CLAY, firm, high plasticity, wet	
		18.0		
			Bottom of hole at 18.0 feet.	



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DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0				
			1.2 Dark grayish brown well-sorted fine SAND, some silt, loose, moist	
			Light yellowish brown well-sorted fine SAND, little silt, loose, moist, yellowish red mottling	
5			5.2 Light yellowish brown well-sorted medium subangular SAND, little silt, loose, wet	
			7.0 Light gray well-sorted medium SAND, little silt, loose, wet	
10				
			13.6 Yellowish red well-sorted medium subangular SAND, some silt, wet	
			14.0 Dark gray CLAY, medium firm, high plasticity, wet	
			Bottom of hole at 13.0 feet.	



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DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0				
		1.0	Very dark brownish gray well-sorted very fine SAND, some silt, moist	
		2.0	Light brownish gray well-sorted fine subangular SAND, some silt, loose, moist, some reddish yellow mottling	
		3.0	Very dark gray well-sorted fine subangular SAND, some silt, loose, moist	
5			Light yellowish brown well-sorted subangular fine SAND, some silt, loose, moist	
		8.0		
			Light grayish brown well-sorted fine subangular SAND, some silt and clay, slight plasticity, loose, some yellowish red mottling, wet at 8 feet	
10				
		12.0		
			Light reddish brown poorly-sorted fine to very coarse subangular SAND, little silt, dense, wet	
		13.6		
15			Light gray well-sorted fine subangular SAND, little silt, dense, wet	
		14.0		
			Bottom of hole at 18.0 feet.	



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DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0				
			1.0 Very dark brownish gray well-sorted very fine SAND, some silt, moist	
			2.0 Light brownish gray well-sorted fine subangular SAND, some silt, loose, moist, some reddish yellow mottling	
			3.0 Very dark gray well-sorted fine subangular SAND, some silt, loose, moist	
5			Light yellowish brown well-sorted subangular fine SAND, some silt, loose, moist	
			8.0	
			Light grayish brown well-sorted fine subangular SAND, some silt and clay, slight plasticity, loose, some yellowish red mottling, wet at 8 feet	
10			12.0	
			Light reddish brown poorly-sorted fine to very coarse subangular SAND, little silt, dense, wet	
			13.6	
			14.0 Light gray well-sorted fine subangular SAND, little silt, dense, wet	
15			15.4 Light yellowish brown poorly-sorted fine to coarse subangular SAND, some silt, dense, wet	
			16.0	
			Light gray well-sorted fine subangular SAND, little silt, dense, wet	
			Very pale brown well-sorted medium subangular SAND, trace silt, dense, wet	
			18.0	
			Pale brown poorly-sorted fine to very coarse subangular SAND, little silt, trace well-rounded fine gravel, dense, wet	
20			19.6	
			19.8	
			20.0 Light gray CLAY, high plasticity, firm, moist	
			Pale brown poorly-sorted fine to very coarse subangular SAND, little silt, trace well-rounded fine gravel, dense, wet	
			21.8	
			22.0 Pale brown poorly-sorted fine to very coarse subangular SAND, little silt, trace well-rounded fine gravel, dense, wet, increasing clay content with depth, grades to soft, low plasticity CLAY with yellowish red mottling	
25			25.6	
			25.8	
			26.0 Light gray poorly-sorted fine to very coarse SAND, subangular, some silt, some well-rounded fine to medium gravel, dense, wet, horizontal yellowish red color laminations	
			27.6	
			28.0 Light gray to yellowish red well-sorted fine SAND and soft CLAY, moderate plasticity, wet	
30			Well-sorted fine subangular SAND, little silt, trace well-rounded gravel, dense, wet	
			Light brownish gray well-sorted medium SAND, trace silt, loose, dense, wet	
			Light brownish gray well-sorted fine SAND, subangular, little clay, slight plasticity, dense, wet, light reddish yellow mottling	
			33.8	
			Light gray well-sorted medium SAND, subangular, trace silt, loose, wet	
35				

ENVIRONMENTAL BH LITHOLOGY LOGS.GPJ ENVIRONMENTAL BH 12/7/18

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CLIENT USEPA

PROJECT NAME Blades Groundwater

PROJECT NUMBER 30250.016.003.0207.00

PROJECT LOCATION Blades, DE

DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
35				
			<p>35.6 Light gray well-sorted fine to coarse SAND, some silt, some subrounded fine to medium gravel, dense, wet (<i>continued</i>)</p> <p>36.0 Light gray poorly-sorted fine to coarse SAND, some silt, some subrounded fine to medium gravel, dense, wet, increasing gravel content with depth, horizontal reddish yellow lamination</p> <p>38.0 Light gray well-sorted fine to medium subangular SAND, some silt, some fine to medium subrounded gravel, horizontal reddish yellow color lamination, dense, wet</p> <p>40.0 Light gray well-sorted fine to medium subangular SAND, some silt, some fine to medium subrounded gravel, dense, wet</p> <p>41.6 Very light gray well-sorted medium subangular SAND, some silt, dense, wet</p> <p>44.6 Medium gray poorly-sorted fine to coarse subangular SAND, some silt, some fine to coarse subangular gravel, yellowish red mottling, dense, wet</p> <p>46.0 Dark gray CLAY, soft, high plasticity, wet</p> <p>Bottom of hole at 46.0 feet.</p>	



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PROJECT LOCATION Blades, DE

DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0				
	BDE-SO-01	1.0	Black well-sorted fine SAND, subangular, some silt, some coarse angular gravel, moist, loose	
			Yellowish brown well-sorted fine SAND, little silt, loose, moist, wet at 6 feet	
5	BDE-SO-04	6.0		
		8.0	Light gray well-sorted fine subangular SAND, some silt, loose, reddish yellow mottling, wet	
			See log for groundwater monitoring well DMW-2	
10				
15				
20				
25				
30				
35				

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CLIENT USEPA

PROJECT NAME Blades Groundwater

PROJECT NUMBER 30250.016.003.0207.00

PROJECT LOCATION Blades, DE

DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
35			See log for groundwater monitoring well DMW-2 (<i>continued</i>)	
40				
42.0				
45			Poorly-sorted fine to coarse subangular SAND, some well-rounded fine to medium gravel, little silt, dense; light gray, dark gray, and yellowish red color lamination	
45.0			Dark gray CLAY, high plasticity, soft, wet	
50				
54.0			Dark gray CLAY, high plasticity, soft, wet, trace wood fibers	
55				
57.8				
58.0			Yellowish red well-sorted subangular medium SAND, some clay, slight plasticity, wet	
60			No recovery	
60.0			Medium reddish gray, well-sorted fine to medium subangular SAND, some silt, wet	
65				
67.6				
68.0			Brownish yellow well-sorted fine to medium SAND, some silt, dense, wet	
69.8			Light gray well-sorted fine to medium SAND, some silt, dense, wet	
70			Brownish yellow well-sorted fine to medium SAND, some silt, dense, wet	
70.0			Light brownish gray well-sorted fine to medium subangular SAND, some silt, dense, wet	
73.2				
74.0			Yellowish red soft CLAY and fine to medium subangular SAND, moderate plasticity, wet	
75				

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PROJECT NUMBER 30250.016.003.0207.00

PROJECT LOCATION Blades, DE

DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
75				
		75.2	Light yellowish red well-sorted fine subangular SAND, some silt, dense, wet (<i>continued</i>)	
		75.3		
		76.0	Light gray soft high plasticity CLAY, soft	
		78.0	Light yellowish red well-sorted fine subangular SAND, some silt, dense, wet	
		79.6	Reddish brown well-sorted fine subangular SAND, some silt, dense, wet	
80			Medium brownish gray well-sorted fine SAND, some silt, dense, wet	
			Reddish yellow well-sorted fine SAND, some silt, dense, wet	
		81.6		
			Pinkish red well-sorted fine SAND, some silt, dense, wet	
		84.0		
85			Reddish brown well-sorted subangular fine SAND, some silt, very dense, wet	
90				
95				
		96.0		
			Bottom of hole at 96.0 feet.	



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PROJECT LOCATION Blades, DE

ENVIRONMENTAL BH LITHOLOGY LOGS.GPJ ENVIRONMENTAL BH 12/7/18

DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0				
		0.6	Medium grayish brown well-sorted fine subangular SAND, some silt, some subangular fine gravel, loose, moist	
		2.0	Reddish brown well-sorted fine subangular SAND, loose, moist	
			Reddish brown well-sorted fine subangular SAND, loose, moist, grades to yellowish brown	
5		4.0	Light yellowish brown well-sorted subangular fine SAND, little silt, loose, moist	
		8.0	Very light gray well-sorted fine SAND, subangular, trace silt, loose, moist, reddish yellow mottling	
10		10.0	Very light gray well-sorted fine SAND, subangular, trace silt, loose, moist, reddish yellow mottling, grades to subangular medium SAND, trace silt, loose, wet at 11 feet	
15		14.0	Light to medium gray poorly-sorted fine to coarse subangular SAND, some silt, some fine to coarse subrounded gravel, firm, wet, trace reddish yellow mottling	
		18.0	Light gray poorly-sorted fine to coarse subangular SAND, little silt, loose, wet	
20		19.0	Light gray well-sorted fine subangular SAND, trace silt, dense, wet	
		22.0	Bottom of hole at 22.0 feet.	



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DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0	BDE-SO-02		Dark gray well-sorted fine SAND, some silt, moist, loose	
3.0			Reddish yellow well-sorted fine SAND, some silt, moist, loose, subangular, wet at 10 feet	
5	BDE-SO-03			
10.0			Light brownish gray well-sorted fine SAND, some silt, loose, subangular, faint reddish yellow mottling	
14.0			Light brownish gray poorly-sorted fine to coarse subangular SAND and fine to coarse subangular GRAVEL, some silt, loose, wet	
15.2			Light gray well-sorted fine SAND, loose, wet	
20.0			Light brownish gray fine to coarse subangular SAND, little silt, dense, wet	
22.0			Light yellowish brown fine to coarse subangular SAND, some fine to coarse subrounded gravel, some silt, dense, wet	
26.0			Light gray well-sorted fine subangular SAND, some clay, slight plasticity, soft, wet	
28.0			No recovery	
30.0			Light brownish gray poorly-sorted fine to coarse subangular SAND, some subangular fine gravel, some silt, dense, wet	
32.0			Light brownish gray well-sorted subangular fine SAND, little silt, dense, wet	
34.0				
35				

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ENVIRONMENTAL BH LITHOLOGY LOGS.GPJ ENVIRONMENTAL BH 12/7/18

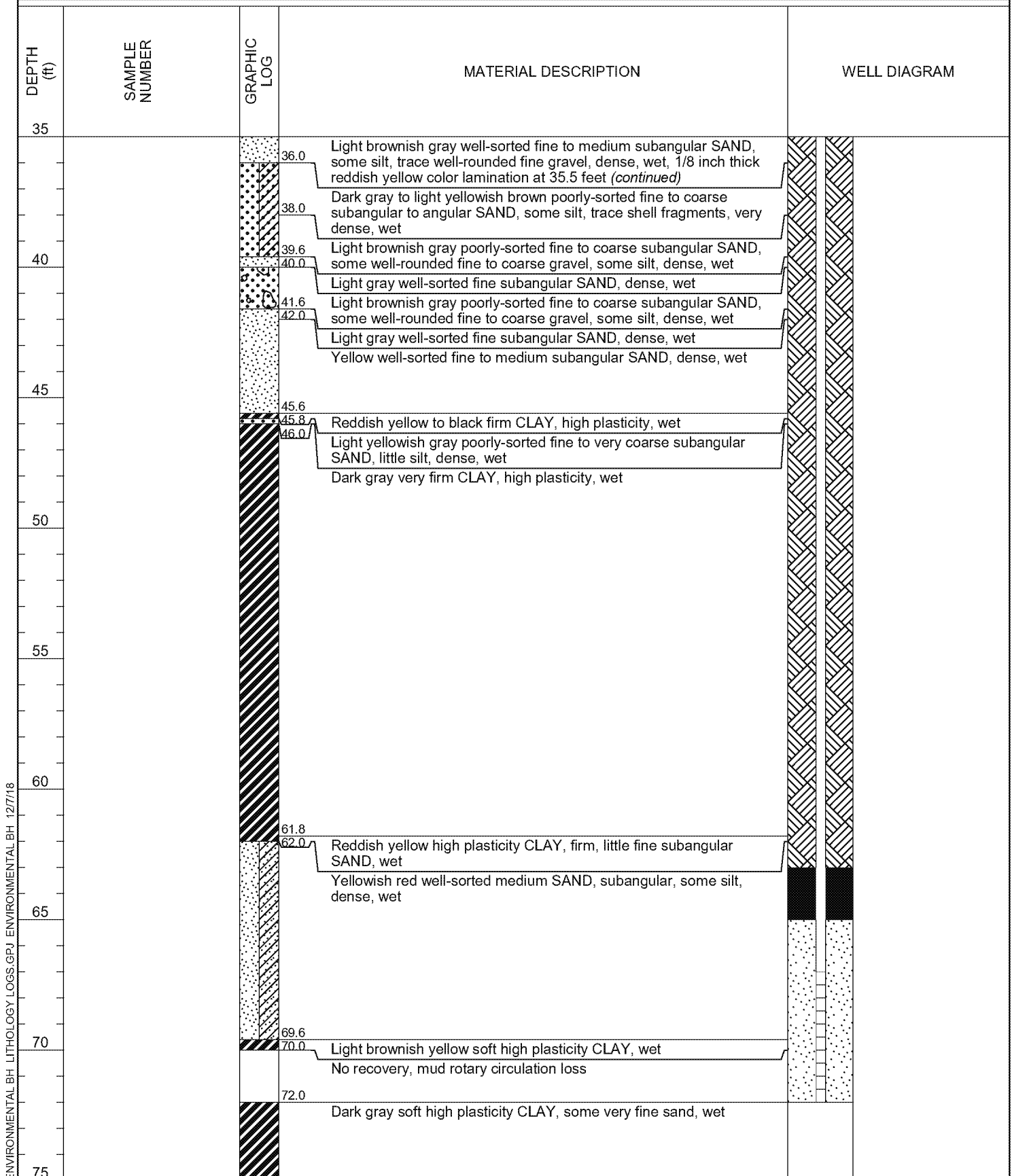


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PROJECT LOCATION Blades, DE




ENVIRONMENTAL BH LITHOLOGY LOGS.GPJ ENVIRONMENTAL BH 12/7/18

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CLIENT USEPA PROJECT NAME Blades Groundwater
PROJECT NUMBER 30250.016.003.0207.00 PROJECT LOCATION Blades, DE

DEPTH (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
75				
		 76.0	Dark gray soft high plasticity CLAY, some very fine sand, wet (continued) Bottom of hole at 76.0 feet.	